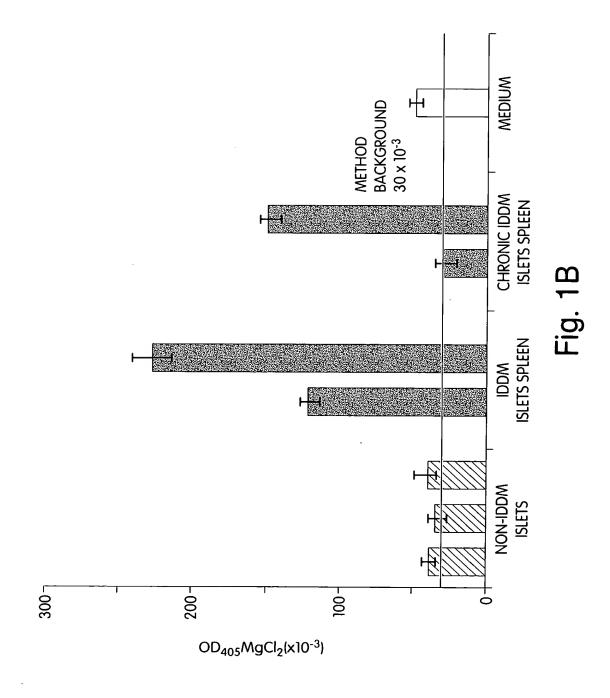


Fig. 1A



(R) 7, 700g



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FIG. 1B



3/25

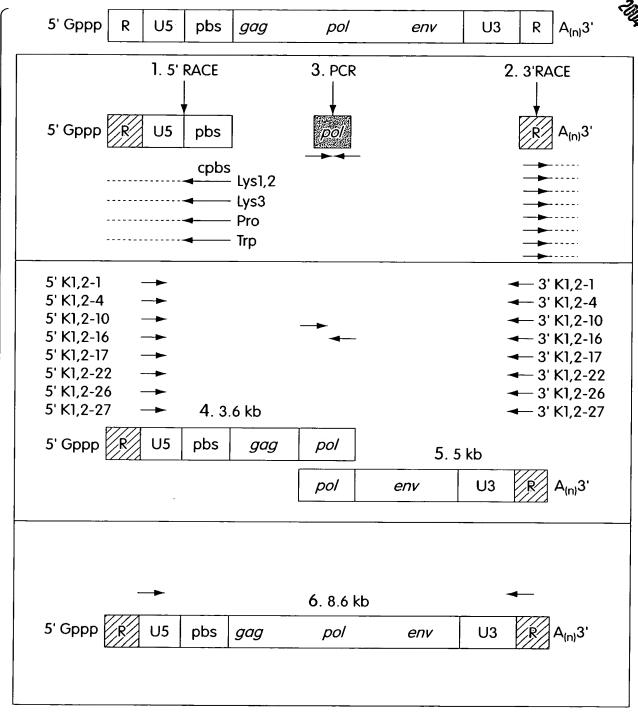


Fig. 2A

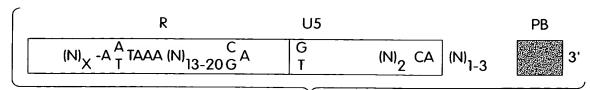


Fig. 2B

Sheet 3 of 25 Inventor: Conrad et al. U.S.S.N.: 09/490,700 Docket No.: 23135-501 FIGS. 2A & 2B





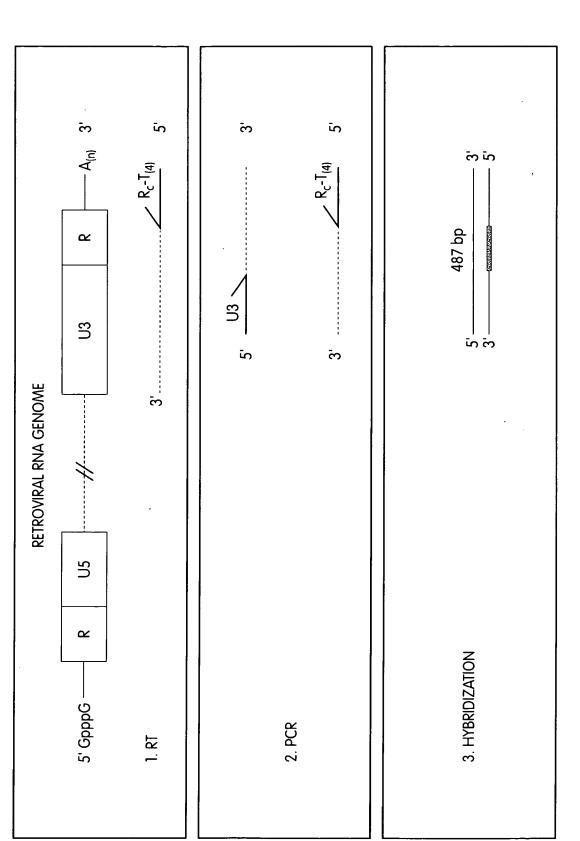


Fig. 2C



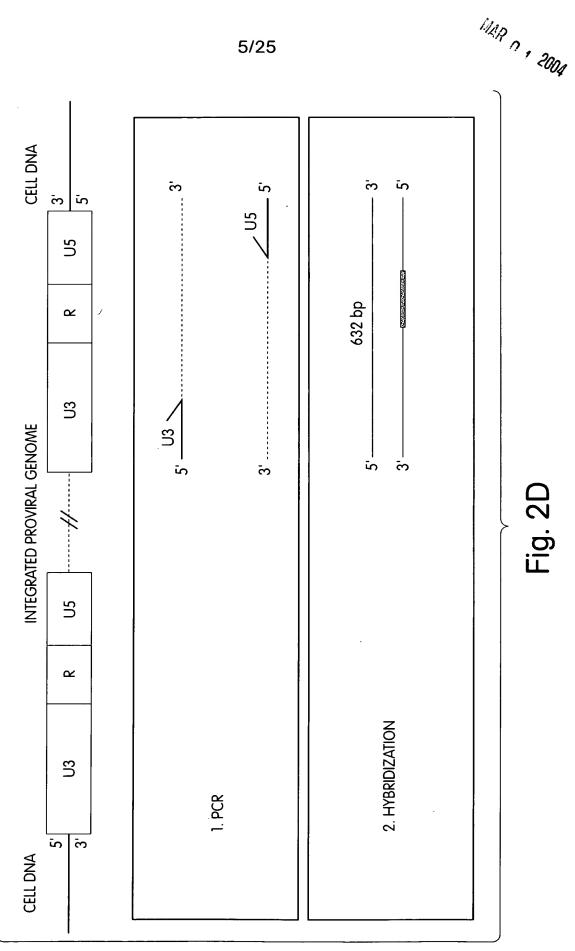


Fig. 2D

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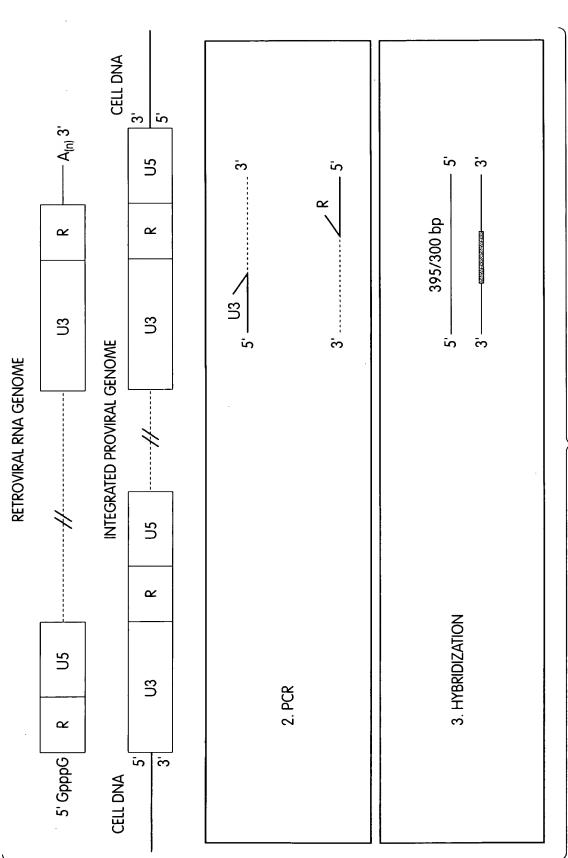
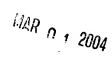


Fig. 2E

FIG. 2E





U3-R	U3-R-POLY(A)	N3-R	U3-R-POLY(A)	U3-R
RT+	RT+	RT-	RT-	DNA
	U3-R	RT+ U3-R RT+ U3-R-POLY(A)	U3-R-POLY(A) U3-R	RT+ U3-R-POLY(A) RT- U3-R-POLY(A) RT- U3-R-POLY(A)

Fig. 2F



(Ap) , 20g

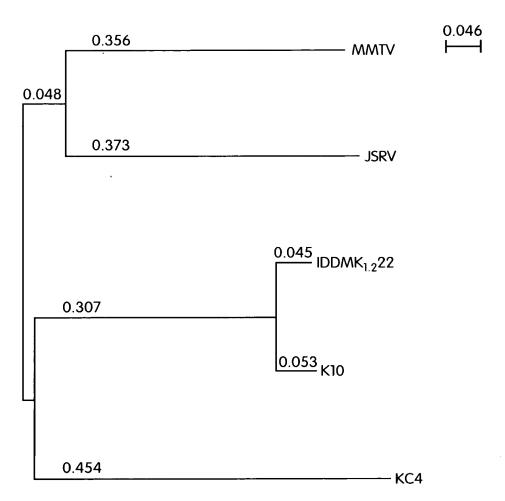


Fig. 3A





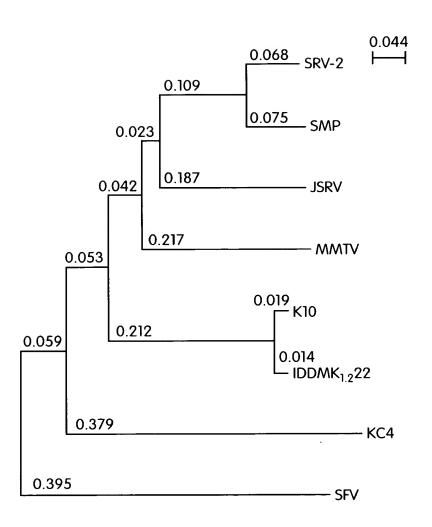


Fig. 3B



MAR n , 2004

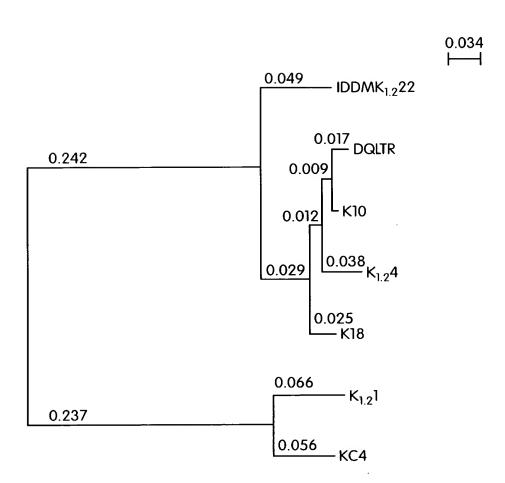
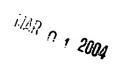


Fig. 3C





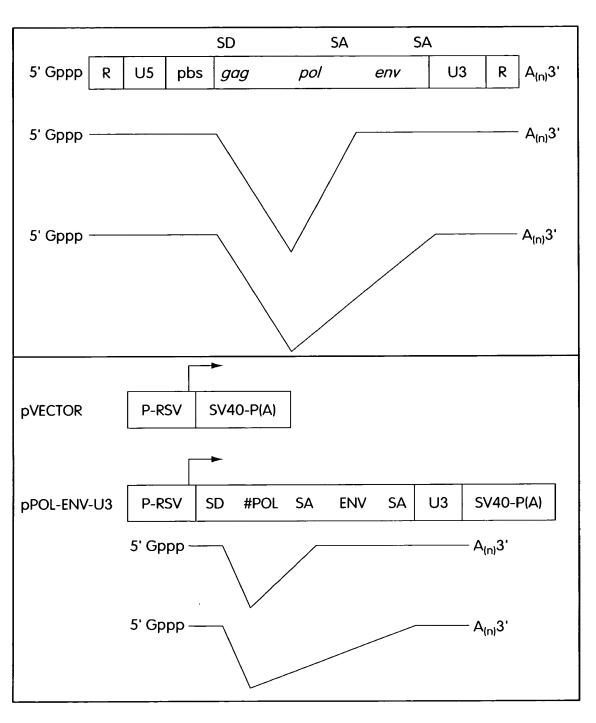


Fig. 4A



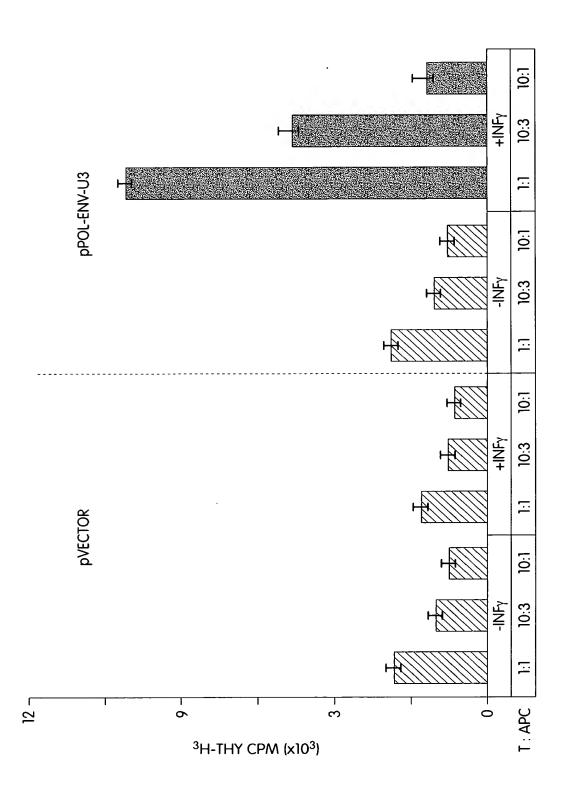


Fig. 4B



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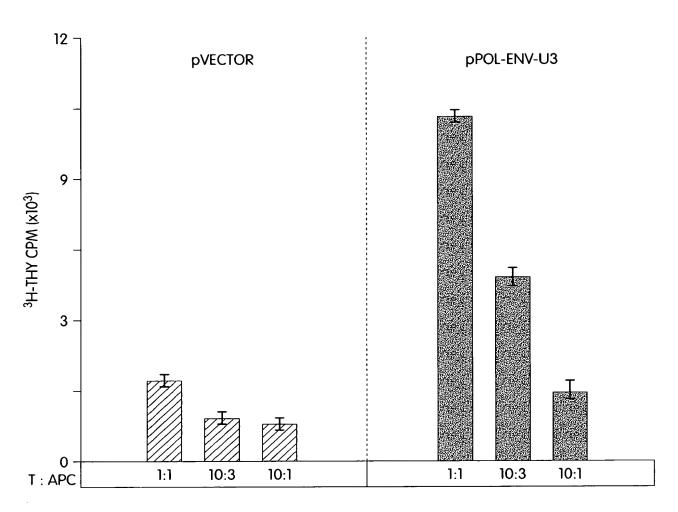


Fig. 4C



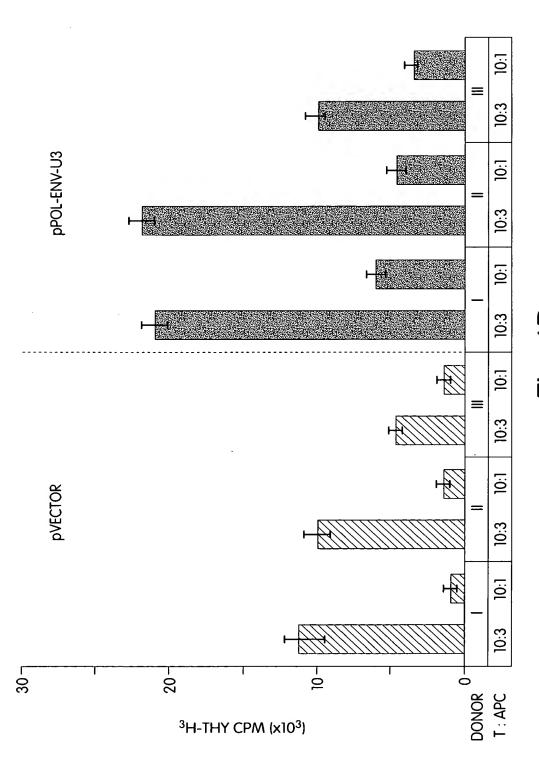
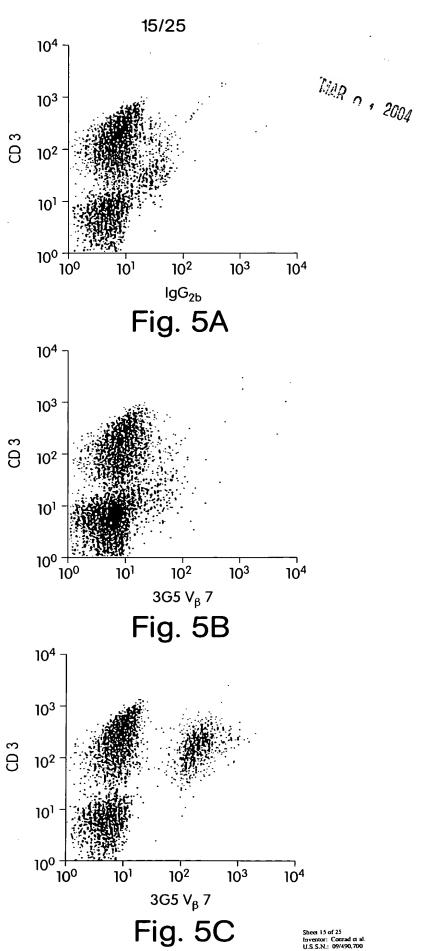


Fig. 4D

Sheet 14 of 25 Inventor: Conrad et al. U.S.S.N.; 09/490,700 Docket No.; 23135-502 FIG. 4D







MAR 0 , 2004

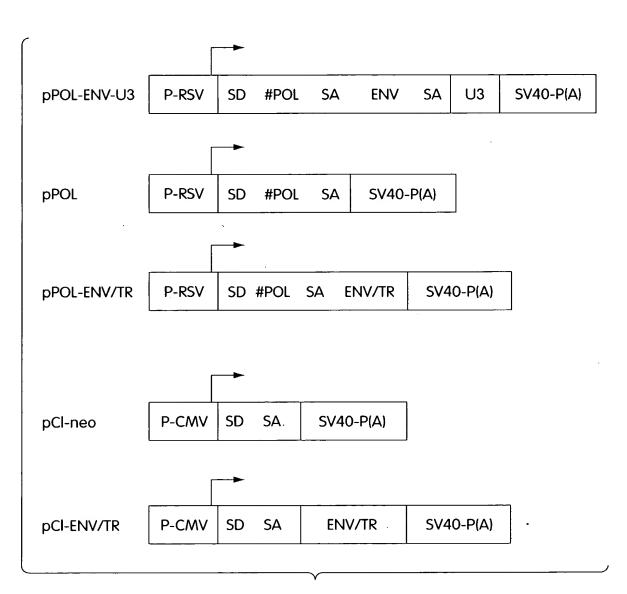


Fig. 6A



MAR n , 2004

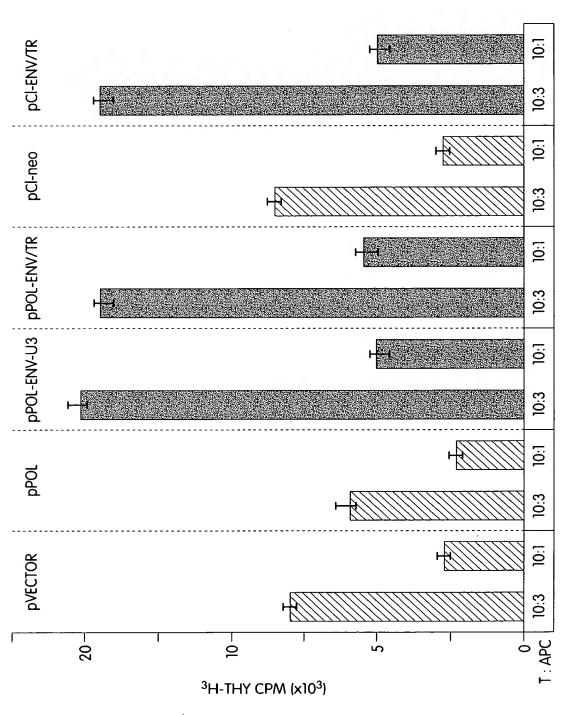


Fig. 6B





iddmk1,2 22-5'ltr

Fig. 7A

iddmk1,2 22-3'ltr

CTGCAGGTGTACCCAACAGCTCCGAAGAGACAGTGACATCGAGAACGGGCCATGATGACGATG GCGGTTTTGTCGAAAAGAAAGGGGGGAAATGTGGGGGAAAAGCAAGAGAGATGAGATTGTTACT **GTGTCTGTATAGAAAGAAGTAGACATAGGAGACTCCATTTTGTTCTGTACTAAGAAAAATTCT** TCTGCCTTGAGATGCTGTTAATCTATGACCTTACCCCCAACCCCGTGCTCTCTGAAACATGTG CCGTGTCAAAcTCAGGGTTAAATGGATTAAGGGTGCTGCAAGATGTGCTTTGTTAAACAGATG CTTGAAGGCAGCATGCTCATTAAGAGTCATCACCACTCCCTAATCTCAAGTACCCAGGGACAC AAACACTGCGAAAGGCCGCAGGGACCTCTGCCTAGGAAAGCCAGGTATTGTCCAAGGTTTCTC CCCATGTGATAGTCTGAAATATGGCCTCGTGGGAAGGGGAAAGACCTGACCATCCCCCAGACCA ACACCCGTAAAGGGTCTGTGCTGAGGAGGATTAGTATAAGAGGAAAGCATGCCTCTTGCAGTT GAGAGAAGAGAAGACATCTGTCTCCTGCCCATCCCCTGGGCAATGGAATGTCTCAGTATAAA ACCCGATTGAACATTCCATCTACTGAGATAGGGAAAAACTGCCTTAGGGCTGGAGGTGGGACA CAGCACTTGATCCTTTACCTTGTCTATGATGCAAACACCTTTGTTCACGTGTTTGTCTGCTGA CCCTCTCCCCACTATTGTCTTGTGACCCTGACACATCTCCCTCAGGAGAAACACCCCAcgaatg atcaataaatactaaggggactcagaggctggtgggatcctccatatgctgaacgttggttcc cgqqqcccccttatttctttctatactttgtctctgtgtctttttcttttccaagtcttct tcatttqcaccttacqaqaaacatctccatcatggttgttggatgggggcaa

Fig. 7B





iddmk1,2 22-env

ATGGTAACACCAGTCACATGGATGGATAATCCTATAGAAGTATATGTTAATGATAGTGTATGG GTACCTGGCCCCACAGATGATCGCTGCCCTGCCAAACCTGAGGAAGAAGGGATGATAAAAT **ATTTCCATTGGGTATCATTATCCTCCTATTTGCCTAGGGAGGCACCAGGATGTTTAATGCCT GCAGTCCAAAATTGGTTGGTAGAAGTACCTACTGTCAGTCCTAACAGTAGATTCACTTATCAC ATGGTAAGCGGGATGTCACTCAGGCCACGGGTAAATTATTTACAAGACTTTTCTTATCAAAGA** TCATTAAAATTTAGACCTAAAGGGAAAACTTGCCCCAAGGAAATTCCTAAAGGATCAAAGAAT **ACAGAAGTTTTAGTTTGGGAAGAATGTGTGGCCAATAGTGTGGTGATATTACAAAACAATGAA** TTCGGAACTATTATAGAT<u>TAG</u>GCACCTCGAGGTCAATTCTACCACAATTGCTCAGGACAAACT CAGTCGTGTCCAAGTGCACAAGTGAGTCCAGCTGTCGATAGCGACTTAACAGAAAGTCTAGAC **AAACATAAGCATAAAAAATTACAGTCTTTCTACCTTTGGGAATGGGAAGAAAAAGGAATCTCT ACCCCAAGACCAAAAATAATAAGTCCTGTTTCTGGTCCTGAACATCCAGAATTGTGGAGGCTT ACTGTGGCCTCACACCACATTAGAATTTGGTCTGGAAATCAAACTTTAGAAACAAGATATCGT AAGCCATTTTATACTATCGACCTAAATTCCATTCTAACGGTTCCTTTACAAAGTTGCCTAAAG** CCCCCTTATATGCTAGTTGTAGGAAATATAGTTATTAAACCAGCCTCCCAAACTATAACCTGT GAAAATTGTAGATTGTTTACTTGCATTGATTCAACTTTTAATTGGCAGCACCGTATTCTGCTG TCCATCCATATTTTGACTGAAATATTAAAAGGCGTTTTAAATAGATCCAAAAGATTCATTTTT ACTTTAATTGCAGTGATTATGGGATTAATTGCAGTCACAGCTACGGCTGCTGTGGCAGGGGTT **GCATTGCACTCTTCTGTTCAGTCAGTAAACTTTGTTAATTATTGGCAAAAGAATTCTACAAGA TTGTGGAATTCACAATCTAGTATTGATCAAAAATTGGCAAGTCAAATTAATGATCTTAGACAA ACTGTCATTTGGATGGGAGACAGGCTTGACTTAGAACATCATTTCCAGTTACAGTGTGACTGG AATACGTCAGATTTTTGTATTACACCCCAAATTTATAATGAGTCTGAGCATCACTGGGACATG GTTAGACGCCATCTACAGGGAAGAGAAGATAATCTCACTTTAGACATTTCCAAATTAAAAGAA** CAAATTTTCGAAGCATCAAAAGCCCATTTAAATTTGGTGCCAGGAACTGAGGCAATTGCAGGA GTTGCTGATGGCCTCGCAAATCTTAACCCTGTCACTTGGATTAAGACCATCAGAAGTACTATG **ATTATAAATCTCATATTAATCGTTGTGTGCCTGTTTTGTCTGTTGTTAGTCTGCAGGTGTACC** TTCCAAAAAAAAAGGGGGAAATTTTGGGGAAAACCAAAAAAATGAAAATGTT

Fig. 7C

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ACA TTT GAA GTT CTA CAA TGA ACC CAT CAG AGA TGC AAA GAA AAG CGC CTC CAC GGA 57

GAT GGT AAC ACC AGT CAC ATG GAT GGA TAA TCC TAT AGA AGT ATA TGT TAA TGA TAG 114 v D P E V N. D. S. 19 W N Ι TGT ATG GGT ACC TGG CCC CAC AGA TGA TCG CTG CCC TGC CAA ACC TGA GGA AGA AGG 171 T D D R C P A K P E E GAT GAT GAT AAA TAT TTC CAT TGG GTA TCA TTA TCC TCC TAT TTG CCT AGG GAG AGC 228 N I S I G Y H Y P P ACC AGG ATG TTT AAT GCC TGC AGT CCA AAA TTG GTT GGT AGA AGT ACC TAC TGT CAG 285 V 0 N W L E P S 76 TCC TAA CAG TAG ATT CAC TTA TCA CAT GGT AAG CGG GAT GTC ACT CAG GCC ACG GGT 342 V AAA TTA TTT ACA AGA CTT TTC TTA TCA AAG ATC ATT AAA ATT TAG ACC TAA AGG GAA 399 Y 0 R S L R K 114 AAC TTG CCC CAA GGA AAT TCC TAA AGG ATC AAA GAA TAC AGA AGT TTT AGT TTG GGA 456 T I N E AGA ATG TGT GGC CAA TAG TGT GGT GAT ATT ACA AAA CAA TGA ATT CGG AAC TAT TAT 513 E N S v V Ι L Q N N E F G T I 152 AGA TTA G 520 D 153

Fig. 7D

k1,2-22-env/fs



ida n. 2004

iddmk1,2 22-ENV

MVTPVTWMDNPIEVYVNDSVWVPGPTDDRCPAKPEEEGMMINISIGYHYPPICLGRA
PGCLMPAVQNWLVEVPTVSPNSRFTYHMVSGMSLRPRVNYLQDFSYQRSLKFRPKG
KTCPKEIPKGSKNTEVLVWEECVANSVVILQNNEFGTIIDZAPRGQFYHNCSGQTQSC
PSAQVSPAVDSDLTESLDKHKHKKLQSFYLWEWEEKGISTPRPKIISPVSGPEHPEL
WRLTVASHHIRIWSGNQTLETRYRKPFYTIDLNSILTVPLQSCLKPPYMLVVGNIVIKP
ASQTITCENCRLFTCIDSTFNWQHRILLVRAREGMWIPVSTDRPWEASPSIHILTEILK
GVLNRSKRFIFTLIAVIMGLIAVTATAAVAGVALHSSVQSVNFVNYWQKNSTRLWNS
QSSIDQKLASQINDLRQTVIWMGDRLDLEHHFQLQCDWNTSDFCITPQIYNESEHH
WDMVRRHLQGREDNLTLDISKLKEQIFEASKAHLNLVPGTEAIAGVADGLANLNPVT
WIKTIRSTMIINLILIVVCLFCLLLVCRCTPTAPKKTVTSRTGHE

Fig. 7F

63 ACATTTGAAGTTCTACAATGAACCCATCAGAGATGCAAAGAAAAGCGCCTCCACGGAGATGGT M V 126 AACACCAGTCACATGGATGGATAATCCTATAGAAGTATATGTTAATGATAGTGTATGGGTACC TWMD N P T E Y N P 189 TGGCCCCACAGATGATCGCTGCCCTGCCAAACCTGAGGAAGAAGGGATGATGATAAATATTTC 44 Ι Ι S 252 CATTGGGTATCATTATCCTCCTATTTGCCTAGGGAGGCACCAGGATGTTTAATGCCTGCAGT 65 H Y C G V 315 CCAAAATTGGTTGGTAGAAGTACCTACTGTCAGTCCTAACAGTAGATTCACTTATCACATGGT 86 V E V T S P N S R Y V 378 AAGCGGGATGTCACTCAGGCCACGGGTAAATTATTTACAAGACTTTTCTTATCAAAGATCATT 107 R P R V N Y L Q D L 431 AAAATTTAGACCTAAAGGGAAAACTTGCCCCAAGGAAATTCCTAAAGGATCAAAGAATACAGA 128 I P 504 AGTTTTAGTTTGGGAAGAATGTGTGGCCAATAGTGTGGTGATATTACAAAACAATGAATTCGG 149 Ι 0 G 567 AACTATTATAGAT<u>T</u>TAGGCACCTCGAGGTCAATTCTACCACAATTGCTCAGGACAAACTCAGT 170 Ι L P Q L L R T 601 CGTGTCCAAGTGCACAAGTGAGTCCAGCTGTCGA<u>TAG</u>

FIGS. 7F-70



12AR n. 2004

iddmk1,2 22-POL

FTIPLAEQDCEKFAFTIPAINNKEPATRFQWKVLPQGMLNSPTICQTFVGRALQPVRDKFSDC YIIHYFDDILCAAETKDKLIDCYTFLPAEVANAGLAIASDKIQTSTPFHYLGMQIENRKIKPQ KIEIRKDTLKTLNDFQKLLGDINWIRPTLGIPTYAMSNLFSILRGDSDLNSKRMLT

Fig. 7H



MP 7, 2004

k1,2-1

gtaaatgacacctatgatgcactgccaccctttcactgtttcaccctgaacatctgctttttac atctaagtgattgtacccaataaatagtgtggagaccagagctctgagccttttgcagcctcca ttttgcaactggtcccctggctcccacctttatgaactcttaacctgtcttttctcattccttt gtcaccattggactttgggtaccctacgggtggtgttgaggctgtcaccgcacttaa

Fig. 8A

k1,2-10

Fig. 8B

k1,2-16

Fig. 8C

k1,2-17

Fig. 8D



(4) (204

k1,2-26

ctcacaaaaataataaaagcttctgttggccattcttcagatcttcatctcttgtgaggatcc ccctgtacatgtaaaaatgtaataaaacttgtatcctttctcctcttaatctgtcttgcatca atatcattcctagacccagtcagagatgggtggaggtgagccgtacatttcccta

Fig. 8E

k1,2-27

Fig. 8F

k1, 2-4

gtgattgtctgctgaccctctccccacaattgtcttgtgaccctgacacatccccctcttcga gaaacacccgcggatgatcaataaatattaagggaactcagaggctggcaggatcctccatat gctgaacgctggttgccccgggtccccttctttctttctatactttgtctctgtgtctttt tcttttccaaatctctcgtcccaccttacgagaaacacccacaggtgtgtccgggcaacccaa cgccacataaca

Fig. 8G



+ 3. CULTURE 48 H WITH T-HYBRIDOMAS BEARING HUMAN V β -7, 2, 3, 8, 9, 13, 17 3. INACTIVATE MITOMYCIN C 4. MEASURE IL-2 RELEASE IN SUPERNATANTS WITH BIOASSAY 2. INDUCE WITH INFY 48 H 1. ISOLATE PBL DONOR A

Fig. 9

14R D. 3004